

c) introducing predetermined progressively increasing amounts of Product R at concentrations between 0 to 100%, by volume, to said plurality of groups of said cultured cells, respectively, by electroporation;

d) culturing said plurality of groups of said electroporated cells;

e) preparing a total RNA from each said group of said cultured electroporated cells after step d, respectively;

f) reverse-transcribing the mRNA of said HIV coreceptor from each said total RNA by a reverse transcription-polymerase chain reaction (RT-PCR) to produce an RT-PCR product;

g) measuring the amount of said RT-PCR product produced from each said group of said cells; and

h) comparing each said amount of said RT-PCR product produced from each said group with each other, whereby a smaller amount of said RT-PCR product correlates a lower level of said gene expression, wherein Product R is made by a process comprising the steps of:

a) mixing 33.8 to 38.8 parts by weight of casein, 15.3 to 20.3 parts by weight of beef peptone, 20.3 to 25.3 parts by weight of ribonucleic acid(RNA), 0.9 to 5.9 parts by weight of bovine serum albumin and 0.1 to 5.1 parts by weight of water and 14.6 to 19.6 parts by weight of sodium hydroxide;

b') autoclaving the mixture from said step a' until RNA is completely digested;

c') cooling the product from said step b', said cooled product comprising solids;

d') removing said solids from the product from said step c';

e') adding water to the product from said step d'; and

f) adjusting the pH of the product from said step e' to a physiologically

acceptable pH range.

7. (three-time amended) A method for determining down-regulation of gene

expression of a human immunodeficiency virus (HIV) coreceptor, comprising the steps of:

a) dividing cells capable of expressing said human HIV coreceptor into a plurality of groups;

b) introducing predetermined progressively increasing amounts of Product R at concentrations between 0 to 100%, by volume, into said plurality of groups of said cells, respectively, by electroporation;

c) reverse-transcribing the mRNA of said HIV coreceptor of each said groups of said cells by a reverse transcription-polymerase chain reaction (RT-PCR) to produce an RT-PCR product;

d) measuring the amount of said RT-PCR product produced from each said group of said cells; and

e) comparing each said amount of said RT-PCR product produced from each said group with each other, whereby a smaller amount of said RT-PCR product correlates a lower level of said gene expression, wherein Product R is made by a process comprising the steps of:

a') mixing 33.8 to 38.8 parts by weight of casein, 15.3 to 20.3 parts by weight of beef peptone, 20.3 to 25.3 parts by weight of ribonucleic acid(RNA), 0.9 to 5.9 parts by weight of bovine serum albumin and 0.1 to 5.1 parts by weight of water and 14.6 to 19.6 parts by weight of sodium hydroxide;

b') autoclaving the mixture from said step a' until RNA is completely digested;

c') cooling the product from said step b', said cooled product comprising solids;

d') removing said solids from the product from said step c';

e') adding water to the product from said step d'; and

f') adjusting the pH of the product from said step e' to a physiologically acceptable pH range.

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cond'd.*
